

No. 22-1386

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

ROKU, INC.,

Appellant,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,

and

UNIVERSAL ELECTRONICS, INC.,

Intervenor.

Appeal from the United States International Trade Commission in
Investigation No. 337-TA-1200

**NONCONFIDENTIAL RESPONSE BRIEF OF APPELLEE
INTERNATIONAL TRADE COMMISSION**

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PATENT CLAIM AT ISSUE

1. [p] A first media device, comprising:
 - [a] a processing device;
 - [b] a high-definition multi-media interface communications port, coupled to the processing device, for communicatively connecting the first media device to a second media device;
 - [c] a transmitter, coupled to the processing device, for communicatively coupling the first media device to a remote control device; and
 - [d] a memory device, coupled to the processing device, having stored thereon processor executable instruction;
 - [e] wherein the instructions, when executed by the processing device,
 - [i] cause the first media device to be configured to transmit a first command directly to the second media device, via use of the high-definition multi-media communications port, to control an operational function of the second media device when a first data provided to the first media device indicates that the second media device will be *responsive* to the first command, and
 - [ii] cause the first media device to be configured to transmit a second data to a remote control device, via use of the transmitter, for use in configuring the remote control device to transmit a second command directly to the second media device, via use of a communicative connection between the remote control device and the second media device, to control the operational function of the second media device when the first data provided to the first media device indicates that the second media device will be *unresponsive* to the first command.

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CONFIDENTIAL MATERIAL OMITTED

The Commission's nonconfidential brief omits from pages 2, 15, 16, 25, 35, 44, and 50 certain confidential information relating to UEI's domestic industry investment, which was designated as confidential and subject to the protective order in the underlying Commission investigation. *See* 19 U.S.C. § 1337(n); 19 C.F.R. § 210.5.

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STATEMENT OF RELATED CASES

This appeal is from the U.S. International Trade Commission's ("Commission") final determination in *Certain Electronic Devices, Including Streaming Players, Televisions, Set Top Boxes, Remote Controllers, and Components Thereof*, Inv. No. 337-TA-1200. Appx1-199. The Commission has no information regarding related cases, other than those identified by Appellant/Respondent Roku, Inc. ("Roku") and Intervenor/Complainant Universal Electronics, Inc. ("UEI").

STATEMENT OF THE ISSUES

The Commission respectfully submits the following statement of the issues:

(1) Whether substantial evidence supports the Commission’s determination that pursuant to a 2012 assignment from an inventor, UEI has sufficient rights to assert U.S. Patent No. 10,593,196 (“the ’196 patent”) (Appx648-674), where Roku fails whatsoever to address that 2012 assignment on appeal.

(2) Whether substantial evidence supports the Commission’s finding that UEI’s expenses for engineering and research and development (“R&D”) relating to the ’196 patent satisfied the domestic industry requirement under 19 U.S.C. § 1337(a)(3)(C) (“subparagraph 337(a)(3)(C)”) when it is undisputed that UEI invested approximately [[investment]] in domestic engineering and R&D to exploit the ’196 patent, and when UEI showed that such investment is also with respect to articles protected by the ’196 patent.

(3) Whether Roku failed to prove by clear and convincing evidence that the asserted claims of the ’196 patent are invalid as obvious, when Roku admits that neither prior art reference discloses a key feature of the claimed invention, there is insufficient evidence of a motivation to combine, and substantial evidence supports the Commission’s finding of secondary considerations of nonobviousness.

STATEMENT OF THE CASE

The Commission provides the following Statement of the Case in response to the statement provided by Roku.

I. PROCEDURAL HISTORY

UEI develops, designs, and produces remote-controlled home entertainment devices and home automation control modules. Appx56. On May 22, 2020, the Commission instituted the present investigation based on a complaint filed by UEI alleging that Roku and other respondents violated section 337 by importing certain streaming players, set-top boxes, remote controllers, and other electronic devices that allegedly infringe the '196 patent and other patents no longer at issue. Appx12002-12011.

On January 25, 2021, the ALJ issued Order No. 40 granting Roku's motion for summary determination that UEI lacked standing to assert the '196 patent because it allegedly did not own all the rights to the '196 patent at the time it filed its complaint. Appx25568-25579. UEI petitioned for Commission review of Order No. 40.

The Commission granted review and found that the ALJ erred as a matter of law in finding that UEI lacked standing. Appx25568-25579; Appx26168-26190. The Commission reversed Order No. 40 and remanded the standing issue to the ALJ for further proceedings consistent with its opinion. Appx26168.

The ALJ held an evidentiary hearing from April 19-23, 2021, by which time Roku was the only remaining respondent. On July 9, 2021, the ALJ issued the Initial Determination on Violation of Section 337 (“ID”), finding that UEI has standing to assert the ’196 patent and that Roku violated section 337 by way of infringing the ’196 patent. Appx47; Appx136-190. The ID also found that UEI satisfied both the technical and economic prongs of the domestic industry requirement, and that Roku failed to prove by clear and convincing evidence that the asserted claims of the ’196 patent were invalid as obvious. Appx136-190.

Both UEI and Roku filed petitions seeking Commission review of the ID, pursuant to 19 C.F.R. § 210.43(a). The Commission determined to review all issues relating to the ’196 patent. Appx27641; Appx27643-27644.

On review, the Commission adopted the ID’s findings that Roku infringed the ’196 patent and that UEI satisfied the technical prong of the domestic industry requirement. Appx9; Appx16-23. The Commission also affirmed that Roku failed to demonstrate obviousness clearly and convincingly, although its reasoning departed somewhat from that of the ALJ. Appx23; Appx26-31; *see also* Appx159-174. The Commission also adopted the ALJ’s finding that a domestic industry exists due to UEI’s substantial investments in engineering and R&D, pursuant to subparagraph 337(a)(3)(C). Appx9-10 (citing Appx187-190). The Commission

took no position on the ID's finding that a domestic industry also exists under subparagraph 337(a)(3)(B) (labor and capital). Appx9.

The Commission thus affirmed that Roku violated section 337 by way of infringing the '196 patent. Appx1; Appx45. The Commission evaluated the statutory public interest factors under 19 U.S.C. § 1337(d)(1), (f)(1), determined that those factors did not preclude a remedy, and issued a limited exclusion order and cease and desist orders. Appx37-45.

II. THE '196 PATENT AT ISSUE

Different media devices (*e.g.*, televisions, DVD players, set-top boxes, etc.) can be controlled by different communication protocols. Appx666 (1:41-53); Appx667 (3:44-47). For example, some protocols require a wired connection, such as Consumer Electronic Control ("CEC") commands sent over a high-definition multi-media interface ("HDMI"). Appx666 (1:48-53). Other protocols rely on a wireless format, such as infrared ("IR"), Wi-Fi, or Bluetooth, which are incompatible with each other. Appx666 (1:48-62).

The '196 patent is directed to a "Universal Control Engine" (or "first media device" in the claims) that can configure itself and a related remote control device to control each wired and wireless media device in an entertainment system using its optimal communication pathway (*e.g.*, HDMI/CEC vs. IR). Appx666 (2:7-21, 2:33-38); Appx667 (3:54-4:7, 4:39-59). The Universal Control Engine can be a

freestanding device or incorporated into another device, such as a television.

Appx666 (2:46-51). Figure 2, below, depicts an exemplary entertainment system that includes a stand-alone Universal Control Engine **100**, television **106**, DVD player **108**, and remote control device **200**. Appx667 (3:42-54, 4:39-44).

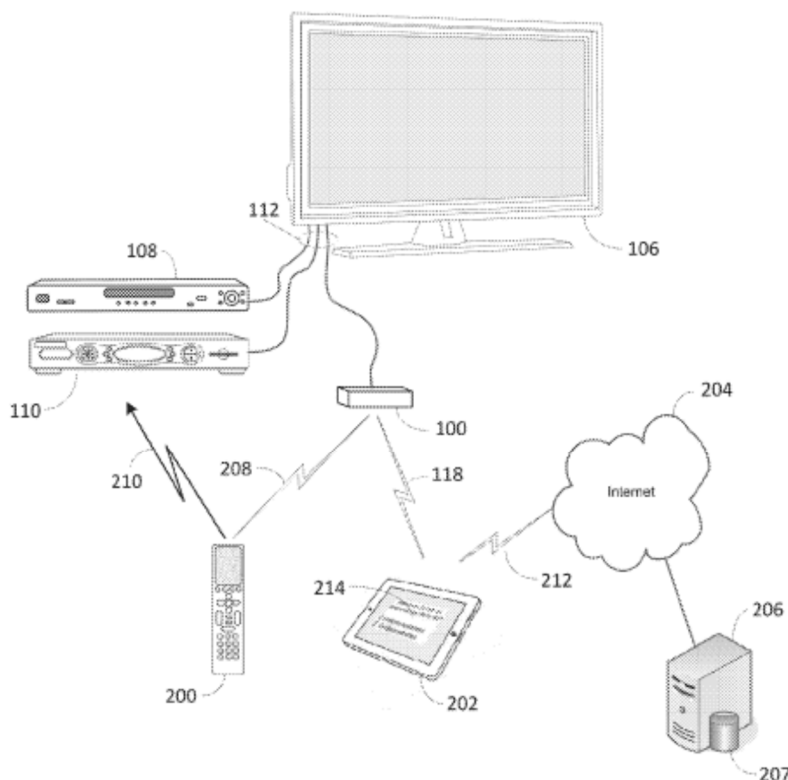


Figure 2

Appx653 (Fig. 2).

During set-up, the Universal Control Engine **100** scans the connected target devices (the claimed “second media device”) to determine which may be responsive to HDMI/CEC commands and which may be controlled via IR, Wi-Fi, or other means. Appx669-670 (8:53-9:7). If the Universal Control Engine

receives data indicating that a target device will be responsive to HDMI/CEC commands, then the Universal Control Engine is configured to directly control that device via HDMI/CEC commands. Appx669-670 (8:53-9:7). If, on the other hand, the Universal Control Engine receives data indicating that a target device is not responsive to HDMI/CEC commands, then the Universal Control Engine transmits data to configure the remote control **200** to directly control the target device via IR or other appropriate wireless protocol **210**. Appx667 (4:44-50).

Claim 1 of the '196 patent is recited below, with bracketing and italics added for clarity:

1. [p] A first media device, comprising:
 - [a] a processing device;
 - [b] a high-definition multi-media interface communications port, coupled to the processing device, for communicatively connecting the first media device to a second media device;
 - [c] a transmitter, coupled to the processing device, for communicatively coupling the first media device to a remote control device; and
 - [d] a memory device, coupled to the processing device, having stored thereon processor executable instruction;
 - [e] wherein the instructions, when executed by the processing device,
 - [i] *cause the first media device to be configured to transmit a first command directly to the second media device, via use of the high-definition multi-media communications port, to control an operational function of the second media device when a first*

data provided to the first media device indicates that the second media device will be responsive to the first command, and

[ii] *cause the first media device to be configured to transmit a second data to a remote control device, via use of the transmitter, for use in configuring the remote control device to transmit a second command directly to the second media device, via use of a communicative connection between the remote control device and the second media device, to control the operational function of the second media device when the first data provided to the first media device indicates that the second media device will be unresponsive to the first command.*

Appx674 (17:2-32) (emphasis and bracketing added).

Of particular interest to the issue of obviousness, *infra*, are the final two limitations—[e][i] and [e][ii] above—in which a separate “first media device” and “remote control device” are configured to directly control the target devices, depending on whether a target device is responsive or unresponsive to an HDMI command, respectively. Appx674 (17:13-32). In limitation [e][i], the “first media device” is configured to directly control the target device if it is responsive to HDMI. Appx674 (17:13-21). In limitation [e][ii], the “first media device” sends data to configure the remote control to control the target device, *e.g.*, via IR transmission, if the target device is unresponsive to HDMI. Appx674 (17:22-32).

UEI also asserted dependent claims 3, 11, and 13-15 of the ’196 patent, but the limitations of those dependent claims are not at issue on appeal.

III. RELEVANT PROCEEDINGS BEFORE THE COMMISSION

Roku has appealed the Commission’s findings with respect to standing, the economic prong of domestic industry, and nonobviousness. Roku has not appealed, and thus waived, its findings related to claim construction, infringement, the technical prong of the domestic industry requirement, remedy, and public interest.

A. UEI’s Standing to Assert the ’196 Patent

As will be discussed in more detail in the Argument, *infra*, there are no jurisdictional requirements for section 337 investigations, but the Commission does require a complainant to demonstrate that it has standing to assert the patent at issue. *SiRF Tech., Inc. v. ITC*, 601 F.3d 1319, 1325-26 & n.4 (Fed. Cir. 2010). In the underlying investigation, Roku disputed that UEI had such authority to assert the ’196 patent.

1. Mr. Barnett and the ’196 Patent’s Chain of Priority

Mr. Barnett and Mr. Arling, two engineers with UEI and co-inventors of the ’196 patent, jointly filed three patent applications in 2011-2012: (i) Provisional Application No. 61/552,857 (“the ’857 provisional application”); (ii) Provisional Application No. 61/680,876 (“the ’876 provisional application”), and (iii) Application No. 13/657,176 (“the ’176 nonprovisional application”) (collectively,

the “Priority Applications”). Appx649-650 (“Related U.S. Application Data”); *see also* Appx26172-26173 (chain of priority).

UEI subsequently filed four continuation and continuation-in-part (“CIP”) applications in Mr. Arling’s name alone that claimed priority to the Priority Applications.¹ Appx26172-26173. It is undisputed that Mr. Arling properly assigned his rights to all his inventions and applications to UEI. Appx26173. Mr. Barnett did not contribute any new matter to the continuation and CIP applications after the Priority Applications were filed. Appx26180-26181.

The final application in this chain, Application No. 15/197,748 (“the ’748 Application”), issued as the ’196 patent. Appx649. Mr. Barnett, however, was erroneously omitted from the ’748 Application and thereby from the ’196 patent when it originally issued. Appx649. On September 21, 2020—five months after UEI filed its complaint—UEI filed a petition with the U.S. Patent and Trademark Office (“PTO”) to correct the inventorship of the ’196 patent by adding Mr. Barnett as a co-inventor. Appx26383-26387. The PTO granted UEI’s petition and added Mr. Barnett as a co-inventor of the ’196 patent on December 15, 2020, to correct this oversight. Appx676.

¹ Roku does not challenge the chain of priority or naming Mr. Arling alone in the continuations or CIPs, so those issues are not on appeal. Roku Br. 6-9, 26-29.

It is undisputed on appeal that the '196 patent claims the benefit of the October 28, 2011, priority date of the '857 provisional application Appx58; Appx650; Appx160.

2. The 2004 Barnett Agreement

When UEI hired Mr. Barnett in 2004, he executed a standard employment agreement (the “2004 Barnett Agreement”), which included the following terms:

Ownership of Invention:

By accepting employment with the Corporation, you hereby agree that all discoveries, designs, devices, and concepts developed by you in the course of and during your employment with the Corporation shall be the property of the Corporation.

Appx21626.

3. The 2012 Barnett Assignments

In 2012, Mr. Barnett expressly assigned to UEI all of his rights to the inventions he co-invented and disclosed in the Priority Applications (collectively, the “2012 Barnett Assignments”) and continuations thereof. Appx21892-21894; Appx21964-21965; Appx22001-22002. Each of the 2012 Barnett Assignments includes the same or similar terms below:

Brian Barnett . . . hereby sell[s] and assign[s] to Universal Electronics Inc. . . . the entire right, title and interest in and to the invention in SYSTEM AND METHOD FOR OPTIMIZED APPLIANCE CONTROL . . . , which has been assigned application number 13/657,176, and the application for United States patent therefor, the

declaration, and all original and reissued patents granted therefor, and all divisions and continuations thereof, including the subject-matter of any and all claims which may be obtained in every such patent

Appx21892; *see also* Appx21964; Appx22001.

4. The Commission's Standing Opinion

In Order No. 40, the ALJ granted Roku's motion for summary determination that UEI lacked standing to assert the '196 patent because he found that neither the 2004 Barnett Agreement nor the 2012 Barnett Assignments conveyed all of Mr. Barnett's rights of inventorship in the '196 patent. Appx25568-25576.

The Commission reversed Order No. 40, expressly finding that the 2012 Barnett Assignments operated as a present conveyance ("hereby sell and assign") of Mr. Barnett's "entire right, title, and interest" in the inventions disclosed in the Priority Applications; that he did not contribute any new or inventive matter to the '196 patent after filing the Priority Applications; that he did not retain any rights of inventorship that he had not had already signed; and thus he did not need to execute another assignment after the 2012 Barnett Assignments to assign his inventorship rights to UEI. Appx26180-26181; Appx26186-26187.

In view of its dispositive finding as to the 2012 Barnett Assignments, the Commission found "the question is moot" whether the 2004 Barnett Agreement conveyed any rights to UEI, and thus did not decide it. Appx26179.

Accordingly, having held that the 2012 Barnett Assignments assigned Mr. Barnett's inventorship rights to UEI, the Commission reversed Order No. 40 and remanded the issue to the ALJ for further proceedings. Appx26168; Appx26188. The Commission, however, did not enter summary determination *for* UEI because UEI had not filed a motion for summary determination that it had standing. *See* Appx26168; Appx26171.

5. The ID and the Commission's Final Determination

The ID recounted the basic facts regarding the '196 patent's chain of priority and the 2012 Barnett Assignments, but it did not mention, let alone rely on, the 2004 Barnett Agreement. Appx140-141. The ID observed that "the Commission found that there is 'no dispute that the 2012 Barnett Assignments expressly operate as a present conveyance . . . of Mr. Barnett's entire right, title, and interest in the invention disclosed in each Priority Application.'" Appx140 (quoting Appx26180).

The ID found that nothing in the course of the continuing proceedings had changed so as to upset the Commission's determination from the summary stage. In particular, the ALJ observed that Mr. Barnett testified at the hearing that "it was always my understanding that I had no ownership of the ['196] patent from the start of my employment" at UEI, and that Roku did not present any evidence to the contrary. Appx141. Having reviewed the evidentiary record, the ID concluded

that “there is no basis to disturb the Commission’s substantive conclusions, and UEI has standing to assert the 196 Patent.” Appx141.

On review, the Commission adopted, without modification, the ID’s finding that UEI has standing to assert the ’196 patent. Appx9-10.

B. The Domestic Industry Requirement

The Commission also affirmed the ID’s finding that UEI, as complainant, demonstrated that “an industry in the United States, relating to the articles protected by the patent, . . . exists” by satisfying both the technical prong and the economic prong of the domestic industry requirement under subparagraph (a)(3)(C) of section 337. 19 U.S.C. § 1337(a)(2), 1337(a)(3)(C).

1. The Technical Prong of the Domestic Industry Requirement

Roku does not dispute that UEI satisfied the domestic industry technical prong requirement by developing, maintaining, and licensing its QuickSet software to Samsung and other third-party customers for implementation and use in certain smart televisions, remote controls, and other devices (“Samsung DI Products”). Appx8-10; Appx59; Appx104. Roku also does not dispute that the Samsung DI Products use UEI’s QuickSet software to practice the ’196 patent, including configuring the Samsung DI Product and its remote control to directly control target devices that are responsive or unresponsive to HDMI/CEC commands, respectively. Appx155-159.

UEI's QuickSet platform has two components, both of which are necessary for implementation and use of QuickSet's functionalities in the Samsung DI Products. Appx176; Appx40010-40011 (39:13-19, 42:11-14). The first component is the QuickSet software development kit ("QuickSet SDK"), which Samsung uses to install and implement QuickSet functionalities on their end-user devices. Appx176; Appx40010-40011(39:24-40:19, 41:12-22). The second component is QuickSet Cloud, which "does the work of figuring out which devices are located in the home entertainment system" through their digital signature fingerprints. Appx176; Appx40010-40011 (40:20-41:7, 41:25-42:10). Roku does not dispute any of these findings on appeal.

2. The Economic Prong of the Domestic Industry Requirement

The Commission adopted the ID's finding that UEI satisfied the economic prong of the domestic industry requirement by demonstrating a "substantial investment" in engineering and R&D to exploit the '196 patent, pursuant to subparagraph (a)(3)(C) of section 337. Appx10; Appx37; Appx187-190. The Commission took no position on UEI's investments under subparagraph 337(a)(3)(B). Appx36-37.

The ID found, and the Commission affirmed, that from 2012 until 2020, when UEI filed its complaint, UEI invested approximately [[investment]] in

domestic engineering and R&D relating to exploitation of the '196 patent.

Appx187-190; Appx52005; *see also* Appx42000-42005.

This figure includes about [[investment]] relating to the QuickSet platform (including about [[investment]] for the QuickSet SDK and [[investment]] for the QuickSet Cloud) and [[investment]] for implementing QuickSet in Samsung televisions. Appx181-182; Appx187-188; Appx52008; *see also* Appx176; Appx40012 (47:6-17, 49:24-50:13); Appx52037-52038.

The Commission also found that this investment in domestic engineering and R&D represents about [[%]] percent of UEI's total [[investment]] in engineering and R&D during that time period. Appx189; Appx40065 (257:8-260:11); Appx52008. Roku does not dispute these figures.

The Commission found that UEI demonstrated a nexus between its engineering and R&D investments and the '196 patent and the Samsung DI Products. Appx188-189. In particular, UEI's domestic R&D investments go directly to implementing QuickSet on the Samsung DI Products and enabling those products to practice the '196 patent. Appx188-189; Appx40010 (40:3-19); Appx40015-40016 (60:15-61:23); Appx40065 (260:22-261:21). Therefore, UEI's investments constituted exploitation of the asserted patent as required for investments under subparagraph (a)(3)(C).

C. Nonobviousness of the '196 Patent Claims

The Commission found that Roku failed to prove by clear and convincing evidence that the asserted claims of the '196 patent were obvious over Chardon (U.S. Patent Appl. Pub. No. 2012/0249890 (Appx46450-46470)) in combination with Mishra (U.S. Patent Appl. Publ. No. 2001/0005197 (Appx50100-50112)). Appx159-174, *aff'd with modification*, Appx23-31. The Commission's final determination comprises the ALJ's ID (Appx159-174) as modified by the Commission's Opinion (Appx23-31).

1. Chardon Combined with Mishra

Roku's primary reference is Chardon. Chardon discloses a "multi-media gateway" with multiple communication pathways (*e.g.*, HDMI, IR, etc.), for controlling various media devices (such as a television, DVD player, or personal video recorder). Appx160; Appx46451 (Fig. 1); Appx46460-46461 (§§ 29-32, 38-42). In one embodiment, the multi-media gateway executes software (called the "remote control engine") that causes the multi-media gateway to issue a CEC command to a target device over an HDMI bus, and then to monitor that HDMI bus for a signal indicating whether the target device received and executed the CEC command. Appx160-161; Appx46455 (Fig. 5); Appx46459 (§ 12); Appx46463-46464 (§ 58). If the HDMI appliance does not respond to the initial CEC command, the remote control engine will determine the IR command that

corresponds to that CEC command, and *the multi-media gateway* will, with its own IR transmitters, transmit that IR command code to the HDMI appliance to perform the same function that would have been performed by the original CEC command. Appx46464 (¶¶ 58-59); Appx46466 (¶ 68).

Chardon does not teach that the multi-media gateway transmits data to configure a separate remote control device to directly control the target devices. Thus, Roku admits that Chardon does not teach the limitation of claim 1, limitation [e][ii], of the '196 patent wherein the “first media device” (or multi-media gateway) “transmit[s] second data to a remote control device, via use of the transmitter, for use in configuring the remote control device to transmit a second command [*e.g.*, an IR command] directly to the second media device” when the target device is “unresponsive” to the initial command over HDMI. Roku Br. 16, 18 (discussing Appx674 (17:22-32)); *see also* Appx164; Appx167-168.

Roku also relies on Mishra, which is directed to a remote control system that controls audiovisual equipment (*e.g.*, a VCR, DVD, or set-top box) via wireless IR and controls a cordless (landline) telephone with an RF link (*i.e.*, the 27 MHz or 900 MHz carrier frequency of the cordless telephone). Appx50100-50101 (Abstract, Fig. 1) Appx50108 (¶¶ 16-18); Appx78. A set-top box sends appropriate protocols (*e.g.*, IR) to the remote control unit to enable it to control the device in question. Appx50108-50110 (¶¶ 18, 20, 34, 38). Mishra, however, does

not disclose an HDMI connection or CEC commands, or testing the target devices for responsiveness to HDMI commands, or configuring the set-top box to transmit commands to the target devices, as required by claim 1. *Cf.* Appx674 (17:13-32).

2. The ALJ's Nonobviousness Findings

The ALJ found that Roku had made a “marginal prima facie case” that claim 1 of the ’196 patent was obvious over Chardon combined with Mishra. Appx169; Appx171. (As discussed, *infra*, the Commission later reversed that finding. Appx29-30.) The ID found that “neither Chardon nor Mishra come[s] close to disclosing all of the limitations of claim 1 separately,” and they are not “especially analogous to the ’196 patent.” Appx168. Nonetheless, the ID found that “[a]ll the limitations of claim 1 of the ’196 patent can be found in Chardon and Mishra [combined], although a certain amount of cherry-picking is required to do so, because Chardon and Mishra teach rather different processes.” Appx167.

In particular, the ID found that Chardon discloses a “first media device” (the multi-media gateway) with a processor, memory, executable code, transceivers, an HDMI port (a CEC bus), and connections to a “second media device[s]” (*e.g.*, HDMI appliances). Appx162-164; App46461 (¶¶ 38-40). The ID also found that Chardon teaches the “responsive” portion of limitation 1[e][i], in which the multi-media gateway is configured to directly control via HDMI those target devices that are responsive to an HDMI signal. Appx165-166; Appx46463-46464 (¶¶ 58, 59).

There is no dispute, however, that Chardon does not disclose limitation 1[e][ii], in which the “first media device” must transmit a signal to configure the remote control device to directly control a target device via IR or other wireless pathway when that device is “unresponsive” to an HDMI signal. Appx166-167 (quoting Appx674 (17:21-32)). Instead, Chardon teaches that the multi-media gateway transmits IR codes directly to the target device if the signal indicates it is not responsive to HDMI/CEC commands. Appx164; Appx166-167; Appx46461 (¶¶ 38-40); Appx40419 (1239:7-19).

The ID found this missing feature is disclosed in Mishra, which discloses a set-top box that can transmit IR codes to a remote control device for relaying to a target device. Appx163; Appx167-168; Appx50109-50110 (¶¶ 20, 33, 37-39).

The ID found that a person skilled in the art would have been motivated to combine Chardon with Mishra’s system of relaying IR codes to solve alleged problems of misalignment of IR blasters. Appx168; Appx40320 (940:5-942:3).

Nonetheless, the ID concluded that Roku’s “prima facie case of obviousness” was only “marginal” and “outweigh[ed]” by UEI’s “impressive,” “substantial,” and “dispositive” evidence of secondary considerations of nonobviousness. Appx169; Appx171. The ID found evidence that the invention satisfied a long-felt but unmet need, as “pithily summed up” in a 2016 Wall Street

Journal (“WSJ”) article, “Hallelujah! Samsung fixed the most annoying thing about TVs! It only took 30 years!” Appx169 (quoting Appx50080).

The ID also found evidence of industry praise of the invention, with a nexus to the invention of the ’196 patent. Appx170. The WSJ article explicitly praised the claim features practiced by the Samsung smart televisions (the “first media device”), including the system’s ability to configure the Samsung TV and remote control to control the target devices through an HDMI or wirelessly (IR or Wi-Fi), depending on the responsiveness of the device. Appx169-70; Appx50081; Appx40421 (1247:21-1248:7). The ID found that a 2016 CNET article also praised the Samsung smart televisions for automatically configuring both the television and remote control to directly control the target devices, depending on whether they were “responsive” or “unresponsive” to an HDMI signal, as in claim 1. Appx50088 (discussed in Appx170).

The ID also found that UEI demonstrated “a sufficient nexus” between its secondary considerations of nonobviousness and the ’196 patent because the articles clearly described the features of the claimed invention. Appx171. The ID further found that “[t]he Wall Street Journal article, and even more so the CNET article, describe in general terms what is recognizably claim 1 of the ’196 patent – but significantly, not Chardon or Mishra.” Appx171. The ID found Roku’s

objections to UEI's evidence of secondary considerations conclusory and unpersuasive. Appx171.

The ID concluded that Roku failed to prove by clear and convincing evidence that the '196 patent claims are obvious. Appx171-174; Appx191.

3. The Commission's Nonobviousness Findings

The Commission affirmed, with some modifications, the ALJ's determination that Roku failed to prove by clear and convincing evidence that the '196 patent claims are obvious. Appx23; Appx29-31 (discussing Appx166-171).

The Commission reversed the ID's finding that Roku had made even a "marginal" showing of prima facie obviousness. Appx31 (quoting Appx171). As noted above, Roku's combination required "a certain amount of cherry-picking" because Chardon and Mishra are "not especially analogous to the '196 patent," and the differences between them and the claimed invention are "substantial." Appx29 (quoting Appx167-168). In particular, the Commission found that neither Chardon nor Mishra discloses a system that automatically configures two different control devices to transmit commands over different pathways (*e.g.*, HDMI vs. IR), depending on whether the target device is responsive to HDMI commands. Appx29 (citing Appx40414 (1218:21-1219:8); Appx40416 (1224:24-1225:5, 1226:1-24); Appx40419 (1239:7-19)).

The Commission also found that Roku failed to present clear and convincing evidence that the alleged problems with IR blasters would have motivated a person skilled in the art to combine Chardon with Mishra. Appx30. Among other things, the Commission found that the alleged problems with IR blasters would not have motivated a person skilled in the art to replace Chardon's single control device (the multi-media gateway) "with a more complicated system that uses two controlling devices (*e.g.*, a set-top box [using HDMI] and a remote control [using IR])" to control different target devices, as in claim 1. Appx30. Mishra also does not disclose using two controllers to control the target devices, let alone dividing control based on the target device's responsiveness to an HDMI command. Appx30; Appx674 (17:13-32). The Commission found that "combining Chardon with Mishra does not involve a simple substitution of known elements," as Roku argues, because neither reference teaches or suggests "divid[ing] control of the target devices between two different control devices." Appx30.

The Commission also found that UEI's evidence of secondary considerations of nonobviousness was even more "substantial,' 'impressive,' or 'dispositive' than the ID recognizes." Appx31 (quoting from Appx169-171).

The Commission therefore affirmed the ID's finding that Roku failed to prove the '196 patent claims were invalid as obvious. Appx31.

SUMMARY OF THE ARGUMENT

This Court should affirm the Commission’s findings on standing, the domestic industry requirement, and nonobviousness.

First, Roku’s arguments on standing are completely misplaced, as both the ALJ and the Commission expressly relied on the 2012 Barnett Assignments—not the 2004 Barnett Agreement—to find that Mr. Barnett transferred all of his rights as an inventor to the UEI. The Commission’s findings with respect to the 2012 Barnett Assignments are legally correct and not disputed on appeal. Thus, this Court should affirm the Commission’s finding that UEI thus had standing to assert the ’196 patent. Appx9-10; Appx130-141; Appx26186-26187.

Second, the Court should affirm the Commission’s finding that UEI satisfied the domestic industry requirement. Subparagraph 337(a)(3)(C) requires with respect to articles protected by the asserted patent “substantial investment in” the asserted patent’s “exploitation,” such as engineering or R&D, and does not require—expressly or even impliedly—that a complainant allocate its domestic investments to the products protected by the patent. In the present case, UEI plainly satisfied the statutory requirement. UEI relied only on domestic R&D investments in those QuickSet software products that relate directly to the Samsung DI Products that practice the claimed invention. UEI also produced substantial evidence that its domestic engineering and R&D investments were

“substantial,” averaging about [[investment]] per year, or about [[investment]] total, which accounted for approximately [[%]] percent of its total worldwide engineering and R&D investments over the same period. These findings are supported by substantial evidence and should be affirmed.

Finally, this Court should affirm the Commission’s finding that Roku failed to prove by clear and convincing evidence that the asserted claims are invalid. Substantial evidence supports the Commission’s factual findings regarding the scope and content of the prior art and the differences between the prior art and the claimed invention, which the Commission performed under a proper *Graham* analysis. Moreover, substantial evidence supports the Commission’s finding that there is a nexus between the claimed invention and UEI’s secondary considerations of nonobviousness, and that the evidence of industry praise, long-felt but unmet need, and widespread adoption is compelling and dispositive.

In sum, the Commission’s findings are supported by substantial evidence and a proper application of the law and should be affirmed.

ARGUMENT

I. STANDARD OF REVIEW

Pursuant to the Administrative Procedure Act, this Court reviews the Commission’s legal conclusions *de novo*, while the Court reviews its factual findings, including factual findings it adopted from the ALJ, for substantial

evidence. *Bio-Rad Labs., Inc. v. ITC*, 998 F.3d 1320, 1327 (Fed. Cir. 2021) (citing 5 U.S.C. § 706). “A finding is supported by substantial evidence if a reasonable mind might accept the evidence as adequate to support the finding in question.” *Id.* (quotation omitted). This Court should affirm a factual determination by the Commission if it is reasonable and supported by the record as a whole, even if there is some evidence that detracts from that conclusion. *Id.* at 1329.

A. Standing

The Commission rejects Roku’s assertion in its Legal Standard section that the “[s]tanding” issue in this appeal “is a jurisdictional issue that may be raised at any time and the burden always remains on the complainant.” Roku Br. 25. Rather, notwithstanding the use of the word “standing” as shorthand for whether UEI had sufficient rights to assert the ’196 patent, as with all the other issues on appeal, and consistent with the rule of prejudicial error of the Administrative Procedure Act, 5 U.S.C. § 706, it is Appellant Roku’s burden to demonstrate error on appeal. *See generally Golden Blount, Inc. v. Robert H. Peterson Co.*, 365 F.3d 1054, 1063 (Fed. Cir. 2004); *SmithKline Diagnostics, Inc. v. Helena Labs. Corp.*, 859 F.2d 878, 892 (Fed. Cir. 1988).

First, there is no subject-matter jurisdiction issue at the Commission because there are no jurisdictional issues at the Commission, as the Supreme Court has recognized as a matter of administrative law. *See City of Arlington, Tex. v. FCC*,

569 U.S. 290, 298 (2013) (explaining that with agencies “there is no principled basis for carving out some arbitrary subset of . . . claims as ‘jurisdictional’”).

Second, even on appeal to this Court, whether a party possesses all substantial rights in a patent is, at most, a statutory standing issue that does not implicate subject-matter jurisdiction at all. *Lone Star Silicon Innovations LLC v. Nanya Tech. Corp.*, 925 F.3d 1225, 1235-36 (Fed. Cir. 2019).

Third, that statutory standing question arises in connection with civil actions for patent infringement and appeals therefrom. Statutory standing in cases like *Lone Star*, 925 F.3d at 1235-36, arises from the Patent Act and the remedies it allows for patent infringement. *See* 35 U.S.C. § 281 (“A patentee shall have remedy by civil action for infringement of his patent.”). There is no statutory standing issue here because a Commission investigation is not a “civil action,” *id.*, and because section 337 imposes no statutory restriction on who can be a complainant, 19 U.S.C. § 1337(a)(1)(B)(i). *See Ritchie v. Simpson*, 170 F.3d 1092, 1094 (Fed. Cir. 1999) (“[T]he starting point for a standing determination for a litigant before an administrative agency is not Article III, but is the statute that confers standing before that agency”). Rather, as a matter of Commission regulation and practice, the Commission limits who may appear as a complainant

in its patent-based investigations.² *See* 19 C.F.R. § 210.12(a)(9)(iv) (requiring the complaint to include copies of licensing agreements “that complainant relies upon to establish its standing to bring the complaint”); *id.* § 210.12(a)(9)(ii) (requiring the complaint to identify “ownership of each” asserted patent and to include “a certified copy of each assignment of each” asserted patent).

Thus, although the Commission adopted the standing requirement of the courts in patent infringement cases,” it is not a jurisdictional requirement that would allow Roku to avoid its burden to demonstrate harmful error on appeal.

B. Domestic Industry

A complainant bringing a patent-based section 337 investigation must prove that a domestic industry “relating to the articles protected by the patent” exists or is in the process of being established. *Motorola Mobility, LLC v. ITC*, 737 F.3d 1345, 1351 (Fed. Cir. 2013) (quoting 19 U.S.C. § 1337(a)(2)). A domestic industry exists if the complainant has made, “with respect to the articles protected by the patent . . . (A) significant investment in plant and equipment; (B) significant employment of labor or capital; or (C) substantial investment in its exploitation,

² *Certain Audio Processing Hardware, Software, and Products Containing the Same*, Inv. No. 337-TA-1026, Comm’n Op., 2018 WL 8648374, at *5 (Apr. 18, 2018); *see SiRF*, 601 F.3d at 1326 n.4 (recognizing that “the Commission strictly reads the federal standing precedent into its rules”) (quotation and modification omitted).

including engineering, research and development, or licensing.” *Id.* (quoting 19 U.S.C. § 1337(a)(3)).

Whether a complainant has satisfied the domestic industry requirement generally involve mixed questions of law and fact, reviewed *de novo* and for substantial evidence, respectively. *Id.* at 1348, 1302.

C. Patent Issues: Obviousness

Patents are presumed valid, so the challenging party must prove invalidity by clear and convincing evidence. *Guangdong Alison Hi-Tech Co. v. ITC*, 936 F.3d 1353, 1359 (Fed. Cir. 2019) (citing 35 U.S.C. § 282). The Court reviews the Commission’s factual findings underlying an invalidity determination by ascertaining whether those findings are supported by evidence that a reasonable person might find clear and convincing, and whether those findings form an adequate predicate for the legal determination of invalidity. *Id.*

In particular, obviousness is a question of law based on underlying factual findings. *Apple Inc. v. ITC*, 725 F.3d 1356, 1361 (Fed. Cir. 2013). The Court reviews the Commission’s obviousness determination *de novo* and its factual findings for substantial evidence. *Id.* The factual findings include: (1) the scope and content of the prior art; (2) the differences between the prior art and the claims at issue; (3) the level of ordinary skill in the art at the time the invention was made; and (4) secondary considerations (or objective indicia) of nonobviousness, if any

(the “*Graham* factors”). *Motorola Mobility*, 737 F.3d at 1348 (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)).

Accordingly, findings regarding what the prior art teaches; whether a person of ordinary skill in the art would have been motivated to combine the references in question; and whether a reference teaches away from the claimed invention are all questions of fact. *Meiresonne v. Google, Inc.*, 849 F.3d 1379, 1382 (Fed. Cir. 2017) (citing *Apple Inc. v. Samsung Elecs. Co.*, 839 F.3d 1034, 1047-48 (Fed. Cir. 2016) (*en banc*); *In re Mouttet*, 686 F.3d 1322, 1330 (Fed. Cir. 2012)).

II. THE COMMISSION CORRECTLY HELD THAT UEI HAS OWNERSHIP RIGHTS TO ASSERT THE ’196 PATENT

Roku’s arguments on appeal as to standing are legally wrong and misrepresent the Commission’s findings. Roku erroneously contends that the Commission found that the 2004 Barnett Agreement controls. Roku Br. 26-32. But the Commission’s findings are indisputably based on the 2012 Barnett Assignments, which Roku understood to be true in the administrative proceedings. Appx27364. Roku has chosen not to argue against those findings on appeal. The Commission’s standing findings, therefore, are undisputed, and should be affirmed.

A. On Appeal, Roku Fails to Address the Commission’s Dispositive Findings as to the 2012 Barnett Assignment

Roku’s arguments on appeal are based entirely on the 2004 Barnett Assignment (Roku Br. 26-32), which Roku headlines by contending that “the

Commission’s findings on standing rested on the 2004 Barnett agreement alone,” *id.* at 31-32 (formatting omitted). That representation is specious because the Commission findings, *on their face*, extensively examined the 2012 Barnett Assignments and found them dispositive. Appx26180-261877. In particular, the Commission explicitly and plainly held that Mr. Barnett had expressly and immediately conveyed all of his inventorship rights to the Provisional Applications to UEI through the 2012 Barnett Assignments, as follows:

There is no dispute that the 2012 Barnett Assignments expressly operate as a present conveyance (“hereby sell[s] and assign[s]”) of Mr. Barnett’s “entire right, title, and interest” in the invention disclosed in each Priority Application

Appx26180 (emphasis added). Because the 2012 Barnett Assignments were dispositive of standing, the Commission took no position as to the 2004 Barnett Agreement. Appx26180.

That finding, as well as the other findings that accompanied it, were made in connection with the Commission’s reversal of Order No. 40. From a procedural standpoint, the Commission could not convert Roku’s motion for summary determination of no standing into an affirmative determination that UEI has standing because UEI had not filed a cross-motion for summary determination. Appx140; *compare* Fed. R. Civ. P. 56(f)(1) (permitting, as part of the 2010 amendments to the rule, the court to “grant summary judgment for a non-movant”)

with 19 C.F.R. § 210.18 (lacking a corresponding provision in connection with the Commission's summary determination practice). Thus, the Commission remanded the issue to the ALJ to make a final initial determination on standing and any other issues remaining in the investigation. Appx26187-26188.

The ALJ concluded on remand that Roku did not provide "any new evidence at all" in support of its assertion that UEI lacked standing and, "[t]hus, there [wa]s no basis to disturb the Commission's substantive determinations." Appx141.

Accordingly, the ALJ held in the final ID that "UEI has standing to assert the '196 patent." In stark contrast to its opening brief before this Court, Roku frankly stated in its petition for Commission review of the final ID: "*Roku understands that the Commission has already expressed an opinion on the standing issue with regard to the 2012 Barnett assignments, and the arguments below are primarily made to preserve this issue for an appeal.*" Appx27364 (emphasis added).

As Roku itself foresaw in that quoted statement, the Commission did not revisit its opinion as to the 2012 Barnett Assignments. Instead, the Commission adopted "the ID's finding that UEI has standing to assert the '196 patent" (Appx10), wherein the ID, as explained above, itself adopted "the Commission's substantive conclusions" (Appx141) on review of Order No. 40.

Roku's litigation strategy left Roku in a position to challenge on appeal UEI's standing under the 2012 Barnett Assignments. Appx27364 (n.4). Yet, now,

on appeal, Roku has jettisoned all the 2012-related arguments it presented below. *Compare* Roku Br. 25-31 *with* Appx27364-27368. Instead, Roku challenges only the 2004 Barnett Agreement argument (Roku Br. 25-31), which the Commission found is “moot” in view of the 2012 Barnett Assignments, Appx26180. Having failed to challenge the actual basis for the Commission’s findings, Roku’s appeal on this issue necessarily fails.

B. It Is Reasonably Discernable—Indeed, Abundantly Clear—That the Commission’s Findings Are Based on the 2012 Assignments and Not the 2004 Agreement

As discussed above, the Commission’s findings were based on the 2012 Barnett Assignments and not the 2004 Barnett Agreement. Appx26180-26187. The ALJ subsequently noted the Commission’s substantive findings were based on the 2012 Barnett Agreements, *see* Appx 140, and observed that the only new evidence of record was Barnett’s testimony that “‘it was always my understanding that I had no ownership of the [’196] patent from the start of my employment’ at UEI,” Appx141 (quoting Appx40019 (74:1-5)) (modification in ID). The ALJ found that that testimony provided “no basis to disturb the Commission’s substantive conclusions.” Appx141.

Roku provides no clear or rational explanation as to why it now believes the Commission’s final determination is based on the 2004 Barnett Agreement. Roku appears to argue that the ID (and thus the Commission) “decided the case based on

the 2004 Barnett Agreement” because the ID “credited Mr. Barnett’s testimony—which addressed the 2004 Barnett Agreement, not the priority applications.” Roku Br. 32 (citing Appx141). Roku’s argument is nonsensical, as the ALJ quoted the Commission’s analysis of the 2012 Barnett Assignments (which Roku does not contest), the ALJ did not mention the 2004 Barnett Agreement, and the Commission took no position on the 2004 Barnett Agreement. Appx140-141. Roku’s present argument also contradicts its understanding in its earlier petition for Commission review that the basis for standing is the 2012 Barnett Assignments. Appx27364.

The Commission submits that its administrative determinations on standing are abundantly clear. Yet the test for affirming the Commission is far less demanding. This Court is bound to “uphold a decision of less than ideal clarity if the agency’s path may reasonably be discerned.” *Bowman Transp., Inc. v. Ark. Best Freight Sys., Inc.*, 419 U.S. 281, 286 (1974); *see also, e.g., Swagway, LLC v. ITC*, 934 F.3d 1332, 1342-43 (Fed. Cir. 2019). Roku fails to demonstrate that the Commission’s path cannot reasonably be discerned.

Rather, Roku’s entire strategy on appeal, including its reliance on *SEC v. Chenery Corp.*, 318 U.S. 80, 87 (1943), *see* Roku Br. 31-32, and its theory that the ALJ’s decision “clearly rested on the 2004 agreement alone,” is misguided,

unsupported, and unsupportable. The Commission’s actual standing findings—which are unchallenged on appeal—should be affirmed in their entirety.

III. UEI SATISFIED THE DOMESTIC INDUSTRY REQUIREMENT

Roku does not dispute that UEI’s domestic engineering and R&D investments, which averaged about [[investment]] per year, or about [[inv-estment]] total, which accounted for approximately [[%]] percent of its total worldwide engineering and R&D investments over the same period. Appx181; Appx189; Appx40065 (257:21-258:23) (Prowse). Nor does Roku challenge that these investments are in the ’196 patent’s “exploitation.” 19 U.S.C. § 1337(a)(3)(C). Instead, Roku argues that UEI’s domestic industry case should fail for allegedly lacking specific “allocation” of UEI’s investments to its licensee Samsung’s DI Products. Roku Br. 35, 37-39. The allocation Roku seeks is simply not required, and even if it were, it was satisfied by the specific showing UEI made below. Roku also argues that the substantiality of UEI’s investment in the ’196 patent’s “exploitation” must instead be measured by the substantiality of Samsung’s investment in its televisions as a whole. Neither the statute nor precedent supports Roku’s attempt to confuse UEI’s investment in the ’196 patent with Samsung’s production and other costs for its televisions.

A. UEI Was Not Required To Allocate Its Engineering and R&D Expenses Under Subparagraph 337(a)(3)(C)

Section 337(a)(2) requires the existence of a domestic industry for patent-based section 337 investigations, specifically, that “an industry in the United States, relating to the articles protected by the patent . . . , exists or is in the process of being established.” 19 U.S.C. § 1337(a)(2). Section 337(a)(3) specifies what that domestic industry must be, as set forth in relevant part below:

(3) For purposes of paragraph (2), an industry in the United States shall be considered to exist if there is in the United States, *with respect to the articles protected by the patent*...—

(A) significant investment in plant and equipment;

(B) significant employment of labor or capital; or

(C) *substantial investment in its exploitation*, including engineering, research and development, or licensing.

19 U.S.C. § 1337(a)(3) (emphasis added).

The Court interpreted this italicized language, as well as the analogous language of paragraph (a)(2), in *InterDigital Communications, LLC v. ITC*, 707 F.3d 1295, 1297-99 (Fed. Cir. 2013). The Court found that it was undisputed that “the word ‘its’ in the last clause of paragraph 337(a)(3) refers to the intellectual

property at issue.”³ *Id.* at 1297. Thus, the Court observed that the focus of subparagraph (a)(3)(C), unlike subparagraphs (a)(3)(A) and (a)(3)(B), is on expenditures in the intellectual property right, and not, as Roku contends here, on the articles protected by the patent. *Id.* at 1297-1303; *see* Roku Br. 35-38.

The Court also repeatedly addressed what is meant by “with respect to articles protected by the patent” when the substantial investment itself is in the intellectual property right. The Court described the requirement three times. First, the Court explained that the statutory requirement means that “the engineering, research and development, or licensing activities must *pertain to products that are covered by the patent that is being asserted.*” *InterDigital*, 707 F.3d at 1297-98 (emphasis added). As will be discussed below, substantial evidence supports the Commission’s finding of domestic industry, because UEI’s investment was in

³ This observation comports with the legislative history of the 1988 Act, in which an earlier version of subparagraph (C) called for a “substantial investment in exploitation of the intellectual property right, including engineering, research and development, or licensing.” H.R. Rep. No. 100-576 at 634 (Apr. 20, 1988). *See Certain Computers and Computer Peripheral Devices, Components Thereof, and Products Containing the Same*, Inv. No. 337-TA-841, Comm’n Op., 2014 WL 5380098, at *18 & n.20 (Jan. 9, 2014). The Commission has long and consistently taken that position. *Certain Microcomputer Memory Controllers, Components Thereof and Products Containing Same*, Inv. No. 337-TA-331, Order No. 6, 1992 WL 811,299, at *1-2 (Jan. 8, 1992), *not reviewed*, 57 Fed. Reg. 5,170 (Feb. 12, 1992).

QuickSet, the technology which it patented and licensed to Samsung, and which is indisputably implemented in Samsung's DI Products.

Second, the Court in *InterDigital* also characterized the "with respect to" requirement as follows:

The only question is whether the InterDigital's concededly substantial investment in exploitation of its intellectual property is "with respect to the articles protected by the patent." That requirement is satisfied in this case because *the patents in suit protect the technology that is, according to InterDigital's theory of the case, found in the products that it has licensed* and that it is attempting to exclude.

Id. at 1299 (emphasis added). Thus, the "with respect to articles requirement" requirement is satisfied by showing that the patents protect the licensed articles.

Again, as will be explained below, the Commission's showing should be affirmed because the '196 patent protects the technology that is found in the licensed Samsung products.

Third, and with even more explanation, the Court explained as follows:

As long as the patent covers the article that is the subject of the exclusion proceeding, and as long as the party seeking relief can show that it has a sufficiently substantial investment in the exploitation of the intellectual property to satisfy the domestic industry requirement of the statute, that party is entitled to seek relief under section 337.

Id. at 1304 (emphasis added). Here too, the patent covers the domestic industry article, and UEI’s investment in exploitation through engineering and R&D is sufficiently substantial.

It is undisputed that the Samsung DI Products incorporate and use UEI’s QuickSet software to practice the ’196 patent and thereby satisfy the technical prong of the domestic industry requirement.⁴ There is also no dispute that all of UEI’s R&D investments bear “a strong and direct nexus to the claimed features of the Asserted Patents,” Appx187-188 (quoting Appx26880), and thus constitute investments in the patent’s exploitation. The Samsung DI Products require both QuickSet SDK and QuickSet Cloud to practice the claimed invention. Appx40011-40013 (41:8-42:14; 48:17-49:1; 50:14-25; 51:1-9). Thus, the Commission properly found that UEI established a nexus between its R&D expenses and the ’196 patent by showing that the Samsung DI Products that implement and use the QuickSet software that UEI has developed, maintained, and helped integrated into the DI Products practice the invention of the ’196 patent.

⁴ Appx156-159; Appx188; Appx40010 (40:3-19); Appx40014-40015 (54:25-60:2); Appx40041-40044 (163:4-172:17; 175:18-176:3); Appx40046 (183:13-184:20); Appx40056-40057 (224:7-227:2).

Accordingly, substantial evidence—indeed, uncontroverted evidence—supports the Commission’s finding that the domestic industry requirement has been met.

Roku’s argument on pages 35 to 38 of its opening brief is vague and confusing. It alleges some “risk that a complainant may rely on expenses unrelated to the protected articles” and as a result the complainant must “allocate” its “expenditures to articles that are actually protected by the patent.” Roku Br. 35-36 (emphasis omitted). Roku fails to explain how that risk pertains to UEI’s actual showing here. More importantly, the statute itself has no allocation requirement, there is no basis as a matter of statutory construction to impose such a requirement, and *InterDigital*, interpreting the statute, found no such allocation requirement. Indeed, rather like the present case, where Roku’s argument is difficult to decipher, the Court in *InterDigital* called out equally “vague” arguments by infringer Nokia “that more is required by the phrase ‘with respect to the articles protected by the patent.’” *InterDigital*, 707 F.3d at 1299. As discussed above, the Court turned aside such arguments recognizing that investment in the intellectual property is necessarily “with respect to the articles” when the articles are protected by the patent. And Roku fails to demonstrate how or why something more is required especially in view of UEI’s specific showing with respect to its patented QuickSet technology discussed above.

Roku's treatment of *InterDigital* is both superficial and incorrect. Roku Br. 36. Roku quotes the portion of the opinion that states that the statute "requires that the industry relate to articles protected by the patent." Roku Br. 36 (quoting *InterDigital*, 707 F.3d at 1298). That is true, but neither that passage nor anything else in *InterDigital* imposes the allocation requirement that Roku seeks in this appeal. Roku instead assumes its own conclusion, that "with respect to the articles" or "pertain to products" or "the industry relate to articles," requires an allocation or accounting to be made. Roku Br. 36 (quoting *InterDigital*, 707 F.3d at 1297-98). Nothing in *InterDigital* supports that interpretation. Even in Roku's quoted passage, the Court acknowledged that "the research and development or licensing activities referred to in subparagraph (C) must also exist with respect to articles protected by the patent, *such as by licensing protected products.*" *InterDigital*, 707 F.3d at 1298 (emphasis added). That is the very situation here: UEI's engineering and R&D investments are with respect to the patented technology that UEI licensed to Samsung. Likewise, in *InterDigital* itself, it was evident to the Court, without any allocation, that InterDigital's substantial investments in its patent portfolio were "with respect to" protected articles. *InterDigital*, 707 F.3d at 1297-99.

Roku's reliance on *Microsoft Corp. v. ITC*, 731 F.3d 1354, 1361 (Fed. Cir. 2013), is equally inapposite. See Roku Br. 35-36. *Microsoft* did not involve a

failure to allocate R&D expenses under subparagraph 337(a)(3)(C), as Roku suggests. *See id.* at 1361-62. Rather, the problem for Microsoft was that, despite its substantial investment in an operating system that was important to the mobile phones that ran on that system, Microsoft failed to “offer sufficient proof of articles actually protected by the patent” (*i.e.*, mobile phones that actually practiced all the limitations of the claimed inventions), or any covered “client applications” that were actually implemented or run on any phones. *Microsoft*, 731 F.3d at 1361-62 (citing *InterDigital*, 707 F.3d at 1299, 1304)). That is simply not the case here.

Commission practice has accorded with this Court’s decisions including *InterDigital*. The Commission has consistently rejected attempts to turn the focus of subparagraph (a)(3)(C) from the asserted intellectual property to articles.⁵ For example, in *Certain Computers & Computer Peripheral Devices and Components*

⁵ Although *InterDigital* controls, to the extent the Court finds that *InterDigital* leaves open some question, the Commission’s interpretation of section 337 in this case warrants deference, even for those jurists sometimes skeptical of *Chevron*’s reach. *See, e.g., Aqua Prods. v. Matal*, 872 F.3d 1290, 1324 (O’Malley, J., for a plurality of the Court). Whether Roku’s focus is on the term “relating to the articles protected by the patent” under paragraph (a)(2) or “with respect to the articles protected by the patent,” those terms—“relating to” and “with respect to”—are not defined in section 337. These undefined relationships are at the core of what Congress committed to the Commission’s expertise and its fair and considered judgment in each investigation based on the facts and evidence.

Thereof, Inv. No. 337-TA-841, Comm’n Op., 2014 WL 5380098, at *26 (Jan. 9, 2014) (“*Peripheral Devices*”), determined, consistent with *InterDigital*, that “the substantial investment, once protected articles have been shown, is in exploitation of intellectual-property rights, ‘including engineering, research and development, or licensing.’” *Id.* Likewise, in *Certain Integrated Circuit Chips and Products Containing the Same*, Inv. No. 337-TA-859, 2014 WL 12796437 (Aug. 22, 2014) (“*Integrated Circuit Chips*”), the Commission recognized the focus on the asserted intellectual property. *Id.* at *22, *27. The substantiality at issue—and thereby an allocation, if any—is with respect to the investment in the asserted patent’s exploitation.⁶ Indeed, the problem for the complainant in *Integrated Circuit Chips*, was that it conflated subparagraph (C) with subparagraphs (A) and (B)—providing evidence of its investment in its articles, but not investment in its patents. *Id.* at *23. But the “domestic investment” was “so unrelated to the asserted patent” that no nexus to the asserted patent could “be imputed.” *Id.* at *25, *29. In the present

⁶ See also Appx188 (citing *Certain Multi-Stage Fuel Vapor Canister Systems and Activated Carbon Components Thereof*, Inv. No. 337-TA-1140, Initial Determ., 2020 WL 1026313, at *137 (Jan. 28, 2020), *aff’d in pertinent part, rev’d in part and taking no position on issues under review*, Comm’n Notice, 2020 WL 1700337 (April 7, 2020)). *Vapor Canisters*, in turn, cites and discusses *Integrated Circuit Chips*, 2014 WL 12796437, at *18. See *Vapor Canisters*, 2020 WL 106313, at *137.

appeal, in contrast, it is undisputed that the entirety of the [[investment]] investment is in the exploitation of the '196 patent.

The Commission sometimes requires allocations, on a case-by-case basis, especially under subparagraphs (a)(3)(A) and (a)(3)(B), where the significant investment is in plant and equipment, or labor or capital, and it must be established that those investments are with respect to articles protected by the patent. Where a complainant/patentee puts forward investments in plant and equipment or labor or capital that encompass investments in protected articles as well as other articles, some allocation of those investments may be necessary to pinpoint the complainant's investments with respect to protected articles. But under subparagraph (a)(3)(C), where the complainant has established that the articles are protected by the patent and the investments are in the patent's exploitation, that is sufficient to demonstrate that the asserted investment "relates to" or is "with respect to" articles protected by the patent. The fact that some cases warrant allocation, or the fact that UEI provided an articles-based allocation for its labor and capital showing under subparagraph (a)(3)(B) here, does not demonstrate any error under subparagraph (a)(3)(C). Moreover, the Commission does not require allocations in all cases, and the Commission did not find that any allocation was required in this case under subparagraph (a)(3)(B) because it made no findings under subparagraph (a)(3)(B) whatsoever.

For all the foregoing reasons, nothing in the text of section 337, in any opinion of this Court, or in any precedent or practice of the Commission supports Roku's attempt to rewrite section 337. Put simply, the fact that articles are protected by the patent, and that there is substantial investment in exploiting the patent is sufficient to demonstrate that the domestic industry "relates to" or is "with respect to" articles protected by the patent.

Finally, even under Roku's own unsupported "allocation" requirement, Roku has failed to show any error, much less prejudicial error, from the Commission decision below. 5 U.S.C. § 706. UEI effectively allocated UEI's domestic R&D expenses to the Samsung DI Products by counting only those R&D expenses that are directly related to integrating and using QuickSet SDK and QuickSet Cloud in the Samsung DI Products or "necessary" for those devices to practice the claimed invention. Appx178; Appx188-189; Appx40016 (61:20-23); Appx40062 (247:22-248:18); Appx40065-40066 (259:16-260:5; 261:10-21); Appx40145 (448:13-449:7). Mr. Barnett testified that all of UEI's QuickSet platform investments were necessary even if Samsung were the only customer. Appx40011-40012 (48:17-49:1; 50:14-25; 51:1-9). UEI also excluded any projects that it conducted for other, non-Samsung customers or for products not at issue. Appx176-178; Appx188; Appx40145 (450:16-18).

For all the foregoing reasons, the Commission’s domestic industry determination should be affirmed.

B. Substantial Evidence Supports the Commission’s Finding That UEI’s Investments in Engineering and R&D Were “Substantial”

Roku’s second theory for no domestic industry fares no better than its first theory, to which it is closely related. Roku erroneously contends that it is not enough that investment in “engineering, research and development, or licensing” of the asserted patent be “substantial,” but instead contends that substantiality must be measured with respect to all investments, including Samsung’s, in “*Samsung’s* [t]elevisions.” Roku Br. 38 (emphasis in original). Roku’s second theory suffers from the same misapprehension of the focus of subparagraph (a)(3)(C) as its first theory, on particular articles rather than the asserted patent.

This theory, too, is foreclosed by *InterDigital*. Nowhere did the Court weigh InterDigital’s investments in licensing (\$7.6 million) against nearly the entire 3G mobile telephone industry that was covered by InterDigital’s licenses. *See InterDigital*, 707 F.3d at 1299. Indeed, the Court noted that InterDigital had leveraged that \$7.6 million spent on licensing into \$400 million in revenue attributable to licenses to its 3G technology, including licenses with “Samsung, LG, Matsushita, Apple, and RIM.” *Id.* at 1299. Under Roku’s theory, then, the \$7.6 million InterDigital invested in licensing would have to be discounted against

the *billions* of investments (if not tens of billions or more) by the manufacturers of the articles protected by the patents there.

There is simply no statutory or other support for Roku’s theory, which has the effect of punishing, rather than rewarding, those who are successful in exploiting their intellectual property. As discussed above with Roku’s first argument, the investment under subparagraph (a)(3)(C) is with respect to exploiting the asserted intellectual property, which is embodied in the protected articles. Tellingly, Roku fails to address *InterDigital* in the context of Roku’s second argument. And, the authorities Roku does address do not help it either.

Roku relies heavily on *Lelo Inc. v. ITC*, 786 F.3d 879 (Fed. Cir. 2015), which fails to support Roku’s position on appeal. Roku Br. 32-35. Subparagraph (a)(3)(C) was not at issue on appeal in *Lelo*, because the Commission had found no domestic industry under it. *Id.* at 885. Thus, *Lelo* addresses the articles-based showing under subparagraphs (a)(3)(A) and (a)(3)(B) and not (a)(3)(C). *Id.* at 880-81 (quoting 19 U.S.C. § 1337(a)(3)(A), (a)(3)(B), and not (a)(3)(C)); *id.* at 883 (same). In any event, *Lelo* decided “the single question of whether qualitative factors alone are sufficient to satisfy the ‘significant investment’ and ‘significant employment’ requirements of § 337.” *Id.* at 883 (quoting 19 U.S.C. § 1337(a)(3)(A), (a)(3)(B)). Even conflating subparagraphs (A), (B), and (C), that “single question” is not at issue in the present appeal, because it is undisputed that

the Commission performed a quantitative analysis of UEI's investments in the present case.

Roku's reliance on *Certain Concealed Cabinet Hinges and Mounting Plates*, Inv. No. 337-TA-289, which Roku cites at pages 40-42 of its brief, is equally misguided. There, the Commission explained that the complainant Blum had "not introduced any evidence of domestic engineering, research and development, licensing, or other domestic activities pertinent to subsection 337(a)(3)(C), so [the Commission's] analysis is restricted to domestic activities falling under subsections (a)(3)(A) and (B)." *Concealed Cabinet Hinges*, Comm'n Op., 1990 WL 10608981, at *10 n.5 (Jan. 8, 1990). Roku's reliance on *Cabinet Hinges*, then, is erroneous in the present appeal, which addresses subparagraph (a)(3)(C).

The other Commission decisions cited by Roku are similarly unhelpful to its position. *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, was an investigation whose domestic industry was based on subparagraph (a)(3)(B), not (a)(3)(C). Comm'n Op., 2011 WL 1303160, at *17-18 (Feb. 17, 2011) (explaining that Ricoh failed to show that its "service and repair expenses" for its "C200 series printers" and related products "constitute a 'significant employment of labor or capital' as required by section 337(a)(3)(B)"). Worse yet for Roku, even in that articles-focused (a)(3)(B) context, the Commission explained that the "context-dependent" inquiry can be with regard to

“a sizeable” expenditure “in relation to a complainant’s overall product-related expenses and investments, or in another relevant context.” *Id.* at *17. Nothing in that decision supports Roku’s requirement to benchmark a complainant’s investments against its licensees’ investments, as opposed to its own.

Certain Carburetors and Products Containing Such Carburetors, Inv. No. 337-TA-1123, a more recent Commission investigation, also does not bear the weight that Roku tries to place on it. In that investigation, the considerations under (a)(3)(A) to (a)(3)(C) were blurred together both because the complainant’s expenses were so negligible, and because “other than the sales-based allocation of its investments, [the complainant] fail[ed] to provide any other context for its domestic industry investments.” Comm’n Op., 2019 WL 5622443, at *9 (Oct. 28, 2019). The Commission found that even if all of the investments and expenditures were credited, those investments and expenditures were “insignificant and insubstantial.”⁷ *Id.* at *10. The Commission declined to adopt a minimum threshold for determining the significance of domestic industry investments and

⁷Although redactions of the complainant’s financial information eliminate some of the clearest indications of insignificance and insubstantiality, the public version nonetheless demonstrates the propriety of the Commission’s decision. At issue were the mere “prototypes for a carburetor” that Walbro “calibrated” in the United States. *Id.* at *8 n.11. The total domestic industry consisted of only “193 carburetors.” *Id.* at *7.

reiterated its flexible approach to review domestic industry on a case-by-case basis.

Id. at *18.

The present appeal comports with the Commission precedents cited by Roku, as well as with *InterDigital* and *Lelo*. Substantial evidence supports the Commission’s finding that UEI’s domestic investments in R&D to develop, integrate, and maintain QuickSet software in the Samsung DI Products were sufficiently “substantial” to satisfy the economic prong under subparagraph 337(a)(3)(C). Appx10; Appx187-190.

The Commission found that that UEI has invested approximately [[inv-
estment]] over approximately eight years for R&D to develop, maintain, and integrate QuickSet (including QuickSet SDK and QuickSet Cloud) for the Samsung DI Products that practice the ’196 patent, including about [[inv-
estment]] relating to development of its QuickSet platform and [[investment]] for implementing QuickSet in Samsung televisions. Appx176; Appx181-182; Appx187-190; Appx42002-42005. Apart from the allocation issue, Roku does not dispute these UEI’s figures or its contentions that it relied solely on projects that relate specifically to the Samsung DI Products, which practice the ’196 patent.

As to the context for these investments, UEI calculated that its [[inv-
estment]] domestic investment in relevant R&D represents about [[%]] percent of its total worldwide investment in R&D. Appx189; Appx40065 (257:21-258:23)

(Prowse). Thus, there is substantial evidence to support the Commission’s finding that UEI made a “substantial” investment in R&D to exploit the ’196 patent and thereby satisfied the economic prong requirement under subparagraph 337(a)(3)(C). *Cf. Printing and Imaging Devices* (viewing the complainant’s investments under paragraphs (a)(3)(A) and (a)(3)(B) “in relation to a complainant’s overall product-related expenses and investments”).

UEI is entitled to rely on its investments in QuickSet, the software that runs the Samsung DI Products, to satisfy the economic prong of the domestic industry requirement, while relying on the complete Samsung DI Products, which are made by a third-party manufacturer, to satisfy the technical prong requirement. *See Motorola Mobility*, 737 F.3d at 1351. In other words, the complainant’s “investments or employment must only be ‘*with respect to* the articles protected by the patent,’” but need not account for the entire “article” in question. *Id.* (quoting 19 U.S.C. § 1337(a)(3) (emphasis added)). It is also undisputed that UEI’s R&D investments are qualitatively significant because they support development, maintenance, and integration of QuickSet, which is critical or foundational to the practice of the ’196 patent by the Samsung DI Products. *See Certain Movable Barrier Operator Sys. and Components Thereof*, Inv. No. 337-TA-1118, Comm’n Op., 2021 WL 129874 at *14-15, *24 (Jan. 12, 2021).

In sum, the Commission’s finding that UEI satisfied the domestic industry requirement under Subsection 337(a)(3)(C) is legally sound, supported by substantial evidence, and should be affirmed.

IV. ROKU DID NOT PRESENT CLEAR AND CONVINCING EVIDENCE THAT THE ’196 PATENT CLAIMS WERE OBVIOUS

The Commission properly found that Roku failed to prove by clear and convincing evidence that the asserted claims of the ’196 patent are obvious over Chardon combined with Mishra. Appx23; Appx29-31. Roku’s objections on appeal should not obscure the fact that it is Roku’s burden to prove obviousness by clear and convincing evidence; it is not the Commission’s or UEI’s burden to prove otherwise. *See In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Litig.*, 676 F.3d 1063, 1078 (Fed. Cir. 2012) (“*Cyclobenzaprine Litig.*”). The Commission’s findings of nonobviousness are legally correct, supported by substantial evidence and should be affirmed.

A. Roku Did Not Present Clear and Convincing Evidence That the Asserted Claims Are Obvious Over Chardon with Mishra

The Commission, in affirming the finding of nonobviousness, properly rejected the ID’s finding of “prima facie obviousness.”⁸ Appx29-31. Even the ID described this finding as only “marginal,” Appx171, as it required “cherry-picking” Chardon and Mishra, which teach “different processes” and are “not especially analogous to the 196 patent.” *See* Appx167-168. This hardly amounts to clear and convincing evidence of obviousness.

The Commission also made factual findings regarding the scope and content of Chardon and Mishra, their differences with respect to the claimed invention, and secondary considerations of nonobviousness. In particular, the Commission, quoting UEI’s expert Dr. Rosenberg, found that “*neither Chardon nor Mishra* discloses the ‘fundamental tenet’ of the ’196 patent’s invention,” Appx29 (emphasis added), *i.e.*, configuring a “first media device” (*e.g.*, multi-media gateway) to control target devices responsive to commands over HDMI, and then issuing a command to separately configure a remote control device to directly

⁸ Since the Commission reversed the ID’s finding of prima facie obviousness, it was not necessary to address UEI’s argument that the ID improperly applied those factors in making that finding. Appx24731-27432. All of the *Graham* factors, including secondary considerations of nonobviousness, must be considered before making an obviousness determination. *Cyclobenzaprine Litig.*, 676 F.3d at 1079-80.

control target devices (*e.g.*, via IR) that are not responsive to HDMI commands, as required by claim 1. Appx167-168; Appx40414 (1218:21-1219:8) (Rosenberg); Appx40416 (1224:24-1225:5; 1226:1-24) (Rosenberg); Appx40419 (1238:22-1239:23) (Rosenberg). Roku and its expert, Dr. Russ, admit that Chardon does not disclose “transmitting second data [from the “first media device,” or multi-media device] to a remote control device, via use of the transmitter, for use in configuring the remote control device to transmit a second command directly to the second media device,” as required by limitation 1[e][ii].⁹ Roku Br. 16, 18 (citing Appx27720-27721; Appx27036-27046); Appx40337 (1009:25-1010:16) (Russ).

Roku further admits that Mishra does not disclose an embodiment with two different media devices directly controlling different targets; in fact, Mishra does not even disclose an HDMI connection. Appx40419 (1239:1-19) (Rosenberg) Appx40338 (1012:10-20) (Russ). Contrary to Roku’s representations, then, combining Chardon with Mishra’s remote control does not accomplish the claimed

⁹ Roku’s suggestion, in a footnote, that Chardon discloses an embodiment with both a multi-media gateway and a remote control is immaterial. Roku Br. 49 n.18 (citing Appx46464, ¶ 62). In that embodiment, which is also shown in Figure 6 of Chardon (Appx46456), the multi-media gateway (or target device), not the remote control device, “issue[s] a set of IR command codes” if the CEC command does not work. Appx46456 (bottom box 630 of flowchart); *see also* Appx46464 (¶ 62) (discussing step 630). There is no configuration of two separate controllers to directly control the responsive or unresponsive targets, respectively, as in claim 1.

invention. The invention does not involve merely issuing or even relaying IR commands with a remote control to control a target device, as Roku suggests. Roku Br. 16. Rather, the invention requires dividing control over the target devices between two separate controllers, such that the remote control device is configured to directly control those target devices that are unresponsive to HDMI commands, while the “first media device” continues to directly control those target devices that are responsive to HDMI commands. Appx30; Appx674 (17:13-32). Combining Chardon with Mishra’s remote control would not configure two separate control devices in that manner, even if one were to somehow route commands from the multi-media gateway through a remote control (in addition to or instead of an IR blaster), because the multi-media gateway would remain in control. *See* Appx29-30; Appx40416-40417 (1226:6-24; 1228:9-1229:3; 1229:20-1230:5) (Rosenberg).

Roku also repeatedly errs in arguing that the Commission supposedly “required” the prior art references to disclose the motivation to combine the references, or “required” that the references be physically combinable, or imposed other, fictitious “legal” requirements on the prior art. *See, e.g.*, Roku Br. 21-22, 44, 46, 47. This is simply not accurate. The Commission (and ID) made specific factual findings, which are essentially undisputed, regarding the scope and content of the prior art (singly and in combination) and differences between the prior art

and the claimed invention, as it was required to do under a proper *Graham* analysis. *See Graham*, 383 U.S. at 17-18; Appx24; Appx168.

Roku does not identify any evidence to undermine any of the Commission's factual findings, much less demonstrate an absence of substantial evidence. Roku also failed to present clear and convincing evidence of a motivation to combine Chardon with Mishra to produce the claimed invention, as explained below.

B. Roku Did Not Present Clear and Convincing Evidence of a Motivation to Combine Chardon with Mishra

In order to avoid hindsight bias, Roku must present clear and convincing evidence that a person skilled in the art would have been motivated to combine Chardon with Mishra to produce the claimed invention with a reasonable expectation of success. *See Norgren Inc. v. ITC*, 699 F.3d 1317, 1322-23 (Fed. Cir. 2012). It is undisputed that the prior art references themselves provide no such motivation.

Roku's sole evidence of motivation consists of brief testimony by its own expert, Dr. Russ, regarding alleged problems with IR blasters. Appx30; Appx40320 (940:5-942:3). Yet UEI's expert, Dr. Rosenberg, testified that IR blasters would not have motivated a person skilled in the art to modify Chardon's multi-media gateway by creating a separate, duplicative pathway for IR signals, via the remote control, when a functional pathway already exists. Appx40419-40420

(1239:20-1242:7) (Rosenberg). Dr. Rosenberg doubted that any alleged problems with IR blasters would have caused a person skilled in the art to combine Chardon with Mishra in such a way as to produce the claimed invention, as neither Chardon nor Mishra discloses using two separate controllers to control the target devices via HDMI or IR, respectively, as set forth in claim 1. Appx40416-40417 (1226:6-24; 1229:13-1230:5) (Rosenberg); Appx40419-40420 (1238:15-1240:4; 1241:2-19; 1242:3-7) (Rosenberg). In view of the record as a whole, substantial evidence supports the Commission’s factual determination that Roku did not present clear and convincing evidence of a motivation to combine Chardon with Mishra to produce the claimed invention. Appx30.

Roku further errs in arguing that the Commission required the proposed combination to be “better” than other control methods. Roku Br. 51. Instead, the Commission “considered the motivation[]” that Roku proposed, and “simply found [it] unpersuasive” under the clear and convincing standard. *See Samsung Elecs. Co., Ltd. v. Dynamics, Ltd.*, 2022 WL 3041158 at *4 (Fed. Cir. Aug. 2, 2022) (nonprecedential) (finding nonobviousness due to insufficient motivation); Appx30. Clear and convincing evidence requires “an abiding conviction that the truth of [its] factual contentions are highly probable,” not merely possible. *See Procter & Gamble Co. v. Teva Pharms. USA, Inc.*, 566 F.3d 989, 994 (Fed. Cir. 2009) (quoting *Colorado v. New Mexico*, 467 U.S. 310, 316 (1984)).

The cases cited by Roku in support of its view are inapposite. In *Bayer Healthcare Pharmaceuticals, Inc. v. Watson Pharmaceuticals, Inc.*, 713 F.3d 1369 (Fed. Cir. 2013), the Court found that “the cited prior art references set forth *every limitation required by the asserted claims* and provide *express motivation to combine* those teachings to derive the claimed COC products.” *Id.* at 1374 (emphasis added). Neither of those facts exists here. As noted above, neither Chardon nor Mishra discloses the configuration of two different controllers to directly control the target devices, nor do they disclose an “express motivation” for their combination, as in *Bayer*. Appx29-30; Appx40416-40417 (1226:6-24; 1229:13-1230:5) (Rosenberg); Appx40419-40420 (1238:15-1240:4; 1241:2-19) (Rosenberg). Further, Dr. Rosenberg testified that if one were to look to improve an entertainment system like Chardon, one would not look to a prior art reference directed to putting a telephone in a remote control, as in Mishra, or duplicate the existing IR pathways from the multi-media gateway in Chardon. Appx40420 (1240:6-1242:2).

The Court should also reject Roku’s selective quotations from *Novartis Pharmaceuticals Corp. v. West-Ward Pharmaceuticals Int’l Ltd.*, 923 F.3d 1051, 1057-59 (Fed. Cir. 2019). Roku erroneously suggests that the Commission required Roku to prove that a person skilled in the art would have “selected” the Chardon/Mishra combination over Chardon or other methods alone. *See Roku Br.*

51. Again, the Commission did not impose such a “selection” requirement. Rather, the Commission found Roku’s evidence of motivation did not rise to clear and convincing evidence, particularly in view of UEI’s evidence of secondary considerations of nonobviousness, as explained above. Appx29-30.

Without clear and convincing evidence of a motivation to combine, Roku’s combination amounts to an improper hindsight combination of disparate elements from Chardon and Mishra (“cherry-picking”) to produce the claimed invention. *See* Appx29; Appx167; *Norgren*, 699 F.3d at 1322-23. The Commission’s finding that Roku failed to prove the asserted claims are obvious should be affirmed.

C. UEI’s Secondary Considerations of Nonobviousness Are Persuasive and Dispositive

The Commission properly affirmed the ID’s findings that UEI’s secondary considerations of nonobviousness are impressive and dispositive, so much so that they overwhelm what the ID found to be Roku’s “marginal prima facie case of obviousness” (a finding the Commission reversed, as discussed above). Appx29; Appx31; Appx169-171.

The Commission properly found that both the 2016 WSJ article and 2016 CNET article demonstrated industry praise of the invention of the ’196 patent. Appx31; Appx169-171. Contrary to Roku’s representations, both articles expressly praise the subject matter of the invention, including the configuration of

a “first media device” (a Samsung smart television) to identify and directly control those media devices that are responsive to HDMI signals and the configuration of a remote control device to directly control via IR those media devices that are “unresponsive” to HDMI.

In particular, the 2016 WSJ article, titled “Review: Samsung Fixes the TV Remote,” states:

Samsung figured out how to treat all of our entertainment sources [including devices] as equal—actually, just like apps One remote dances between them without you having to think about it.

Here how it works: *The first time I set up the [Samsung] TV, it probed all my devices via their HDMI cables. Newer gadgets, like the Apple TV and Xbox One, it knew right off the bat. For older ones, it asked me to identify a brand or a model number.*

[figure deleted]

*Behind the scenes, the TV was labeling each input and wirelessly teaching its remote the language of its corresponding device. (No more playing “Guess the Right Input!”) Some equipment uses infrared signals, while others communicate via HDMI or Wi-Fi. **Samsung’s TV and remote are your universal translator.***

Appx50081 (discussed in Appx169-170) (emphasis added).

In other words, the WSJ article explains—and lauds—the Samsung smart televisions’ ability to “probe” each target device to determine, in effect, whether it is responsive to an HDMI command, and then to configure (“teach[.]”) the

Samsung smart TV or remote control to directly control the target device via HDMI or IR, respectively, depending on its responsiveness. *See* Appx169-171. This is, in lay terms, a description of the invention of the '196 patent.

The 2016 CNET article similarly praises the Samsung smart televisions for configuring separate controllers (*i.e.*, the Samsung smart television and its remote control) to transmit commands via HDMI or IR, respectively, depending on whether the target device is responsive to a command over HDMI, as follows:

If the [target] device works with HDMI/CEC, a control system that works over HDMI cables, the TV can recognize that and control it accordingly *If it doesn't*, the TV can analyze the device's video signal (Samsung wouldn't expand on exactly how) to identify it. Once identification is made, *it queries its database and programs the IR (infrared) commands of the TV remote automatically, which are again mapped to buttons and blasted out by the clicker.*

Appx50088 (discussed in Appx170 (emphasis added)).

The CNET article does not merely “describe” the Samsung smart televisions, as Roku erroneously contends. Roku Br. 58. The passage above goes on to praise its ability to configure the television and remote control “seamlessly and relatively quickly,” which “seemed like cake” compared to a universal remote control. Appx50088-50089. The CNET article expressly praises this dual configuration of the television and remote control as “cool” and highlights their advantages over more conventional control methods, as shown below:

- “. . . Samsung and The Brain do share one burning desire: to control more stuff. The company’s 2016 TVs are doing just that. And unlike most smart TV features, *these are actually pretty cool.*” Appx50086 (emphasis added).
- “. . . Samsung throws in extras that no streaming device can match . . . Amazingly, the TV itself can recognize your external devices as you plug them in, and program the TV’s remote to control them automatically, eliminating setup. *No other tech device I know about can do anything like that.*” Appx50086-50087 (emphasis added).
- “Samsung’s 2016 smart TVs promise to do something no streamer can: command your cable box, game console, lights and thermostat, using just the TV remote.” Appx50086.

Substantial evidence also supports the Commission’s finding that the WSJ article summarized the long-felt need and praise for the Samsung TVs’ ability to control multiple devices in the following exclamation: “Hallelujah! Samsung fixed the most annoying thing about TVs! It only took 30 years!” Appx50080. The WSJ article also praised the Samsung televisions and remotes as superior to “one of those aftermarket universal remotes,” or “clunkers,” which often do not work as well as advertised. Appx50080.

There is no merit to Roku’s argument that Chardon supposedly discloses what is “claimed and novel” in the ’196 patent. *See* Roku Br. 55-56. The claimed invention is not limited to the mere probing of target devices by a multi-media gateway (or other “first media device”) to determine whether the target devices are responsive to an HDMI signal. Rather, the invention requires configuring *two devices*—both the “first media device” and the remote control—to directly control

the target devices via HDMI or IR (or other wireless pathway), depending on whether the target is “responsive” or “unresponsive” to HDMI. Roku, however, admits that Chardon does not disclose this limitation. *See id.* at 56. Thus, Chardon—unlike the WSJ and CNET articles—does not disclose what is “claimed and novel” about the invention, nor does it defeat UEI’s secondary considerations of nonobviousness.

Accordingly, substantial evidence supports the Commission’s finding that UEI’S evidence of secondary considerations of nonobviousness is persuasive, dispositive, and overwhelms Roku’s allegedly “marginal prima facie case” discussed above. Appx31; Appx169-171.

D. UEI Clearly Demonstrated a Nexus Between the Claimed Invention and the Evidence of Secondary Considerations

The Commission properly affirmed the ID’s finding that UEI demonstrated a sufficient nexus between its secondary considerations of nonobviousness. Appx31. As explained earlier, both the WSJ and CNET articles expressly single out and praise the ability of the Samsung smart televisions and remotes for practicing what is, in lay terms, the claimed invention. Appx50079-50084; Appx50085-50091; Appx40421-40422 (1247:21-1248:7).

In particular, those articles praise the ability of the Samsung smart televisions (the “first media device”) to identify which target devices are

responsive to HDMI signals and then to automatically configure the smart television and remote control to directly control the target devices via HDMI or IR, respectively, depending on whether the target is or is not responsive to HDMI signals. Appx50081; Appx50088-50089. Mr. Barnett, a co-inventor of the '196 patent, further explained how a Samsung smart television, using QuickSet software, practices the claimed invention when, during set-up, it “recognizes [a target device] by HDMI” and passes the appropriate information and command codes (*e.g.*, CEC or IR) to and from the Internet-based QuickSet Cloud, depending on whether the target device is responsive or unresponsive to a command over HDMI, as set forth in claim 1. Appx170; Appx40014-40015 (55:2-59:23).

Contrary to Roku’s argument, the fact that the articles may also mention other praiseworthy features of the Samsung smart televisions, such as their “impressively bright and colorful screens” (Appx50080, cited in Roku Br. 54), does not in any way erase or detract from their praise of their use of the claimed invention. Likewise, the fact that the Samsung smart televisions do not have to be configured using the QuickSet software does not detract from the fact that the Samsung smart televisions and remotes (Samsung DI Products) do practice the claimed invention (as found for the technical prong of the domestic industry requirement), as recognized and praised in the WSJ and CNET articles. *See* Appx9; Appx155-159. Both articles, it bears repeating, expressly describe and

praise the automatic configuration and use of two controllers (smart television and remote control) to directly control the target devices, depending on whether each target device is determined to be responsive or unresponsive to a signal sent via HDMI. Appx50081; Appx50088-50089. Thus, UEI has demonstrated the required nexus between the secondary references and the claimed invention.

Accordingly, substantial evidence supports the Commission's finding that UEI demonstrated the requisite nexus between the claimed invention and its secondary considerations of nonobviousness. As discussed above, the Commission also properly found that UEI's secondary considerations were sufficient to overwhelm or rebut Roku's alleged prima facie showing of obviousness, if any such showing was even made. Appx31; Appx171.

CONCLUSION

This Court should affirm the Commission's findings that: (1) UEI has standing to assert the '196 patent under the 2012 Barnett Assignments; (2) UEI satisfied the domestic industry requirement pursuant to subparagraph 337(a)(3)(C); and (3) Roku failed to prove by clear and convincing evidence that the asserted claims of the '196 patent are invalid as obvious over Chardon combined with Mishra.

Respectfully submitted,

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Date: October 25, 2022

CERTIFICATE OF SERVICE

I, Carl P. Bretscher, hereby certify that, on this 25th day of October, 2022, I caused a copy of the foregoing **NONCONFIDENTIAL RESPONSE BRIEF OF APPELLEE INTERNATIONAL TRADE COMMISSION** to be served on counsel of record via the Court's CM/ECF system.

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CERTIFICATE OF CONFIDENTIAL MATERIAL

Pursuant to Federal Circuit Rule 25.1(d)(1), (e)(2), I hereby certify that the attached brief contains nine (9) unique words (including numbers) marked confidential. This number does not exceed the maximum of 15 words permitted by Federal Circuit Rule 25.1(d)(1)(A).

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CERTIFICATE OF COMPLIANCE

Pursuant to Federal Rule of Appellate Procedure 32(g)(1) and Federal Circuit Rule 32(b)(3), I hereby certify that the attached brief complies with the type-volume limitation and typeface requirements of Federal Rules of Appellate Procedure 32(a)(7) and Federal Circuit Rules 32(b)(1) and 32(b)(2). The brief has been prepared in a proportionally-spaced typeface using Microsoft Office 365 ProPlus, in Times New Roman 14-point font. This brief contains a total of 13,779 words, including a count of 13,776 words obtained from the word-count function of the word-processing system (including all footnotes and annotations), plus three (3) words counted manually contained in figures and non-text portions of the brief.

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